Catalogue of Life: From a list to a service

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Abstract

Over the past two decades, Catalogue of Life (COL) has aimed to deliver a species index of all life on earth, based on a consensus classification (Bánki et al. 2022). This index has now reached more than 2 million accepted species names, underpinned by a network of more than 500 experts (Costello et al. 2022). Over this period, the Catalogue of Life has strived to become a genuine international taxonomic resource, based on a collaboration that brings together the knowledge, data and contributions of taxonomic specialists and informaticians around the world. At the same time, the evolving user needs (as expressed by researchers, taxonomists, informaticians, policy-makers, and the like) have made it clear that in order to fulfill these needs, COL must transform from serving a list of species names, to providing more robust taxonomic names services. As a response to this, the Catalogue of Life consortium has renewed its infrastructure, ChecklistBank, in close collaboration with the Global Biodiversity Information Facility (GBIF) and other partners. With this change in infrastructure, COL is aspiring to increase the transparency in its operations, such as providing the criteria for inclusion of datasets in the COL Checklist. Where feasible, COL is also moving towards having taxonomic sectors maintained by active taxonomic communities. The new COL infrastructure provides stable anchoring points for taxonomic information, such as Digital Object Identifiers for COL Checklist releases and source datasets, and stable name identifiers. It also provides services such as downloads, comparisons between datasets, and name matching. As part of its strategy COL is working together with GBIF, ZooBank, and others to move towards stable taxon concept identifiers.

Keywords

Taxonomy, checklist, taxonomic services, concensus classification, stable name identifiers, taxon concepts, Catalogue of Life, GBIF, ZooBank, ChecklistBank

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Presented at

TDWG 2022

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